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U. S. DEPARTMENT OF COMMERCE
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CLIMATOGRAPHY OF THE UNITED STATES NO. 81-35

DECENNIAL CENSUS OF UNITED STATES CLIMATE—

MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION, AND HEATING DEGREE DAYS

TENNESSEE

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PREFACE

The climatological standard normals presented in this publication are based on records for the 30-year period 1931-1960 inclusive. For the first time, normals have been computed for substations and divisions using a base period identical to that used for first-order stations.

Previous normals were published in Weather Bureau Technical Paper No. 31, "Monthly Normal Temperatures, Precipitation, and Degree Days," and were based on records for the period 1921-1950. Earlier sets of normals are described in [1].

This is the first series of publications resulting from the project "The Decennial Census of United States Climate, 1960." The project is a continuation of earlier censuses of the climate of the United States that date back to the early 19th Century and are described in [2]. Future publications of this project will be listings of daily normals of temperature, and degree days; summaries of hourly observations; and listings of monthly divisional averages of temperature and precipitation.

Units used in this publication are degrees F. for temperatures, and inches for precipitation. The heating degree day normals are derived from the monthly normal temperatures, and are computed on the standard base of 65°F. Monthly normals of less than 5 degree days are shown as zero.

Standard Normals for Weather Bureau First Order Stations

A normal of a climatological element is an arithmetic mean for a specific period of record which estimates the true mean of the element at the current exposure of the meteorological instrument measuring the element. The true mean is the mean of all possible observations (population) at the current exposure. It is from this population that future observations will come, not from values in the past record. This is what makes it important to obtain an estimate of this mean. The true mean can never be known exactly but must be estimated from a sample of the past record ([3] p. 53 section 4. 3). The normals presented here are estimates of the true mean obtained from the 30-year sample record 1931-1960. They are called standard normals because they conform to the World Meteorological Organization standard for climatological normals.

If no exposure changes have occurred at a station the normal is estimated by simply averaging the 30 values from the 1931-1960 record. Since it is next to impossible to maintain a multiple purpose network of meteorological stations without having exposure changes, it is first necessary to find and evaluate these changes and then make adjustments for them if necessary.

Heterogeneities in record due to exposure changes are found in two ways: by determining them from the station histories and by use of statistical tests. The statistical test when standardized for the purpose is easy to apply and will often find heterogeneities which are not defined by the station histories as well as those which have been so determined. Two statistical tests were employed: one for temperature and the other for precipitation. These are described in [4].

After the periods of heterogeneity have been determined, adjustments are applied to remove the heterogeneities introduced into the mean. This is done by comparing the record at the base station, for which the normal is desired, to the record at a supplementary station with a homogeneous period which covers the heterogeneous period at the base station. The difference method is applied to the monthly average maximum and minimum temperatures and the ratio method to the monthly total precipitation. A weighted average of the various partial means of the adjusted and unadjusted record is then prepared to give the normal. Brief discussions of the methods of adjustment are found in [3] (p. 49, section 4. 24).

Normal heating degree days are derived by the method described in [5].

Normals for Substations and Divisions

Normals for substations were computed somewhat differently than those for first-order stations. Monthly substation normals are the simple arithmetic averages of the monthly values of temperature and precipitation for the period 1931-1960. These were computed for only those substations that were active during the entire period and no attempt was made to adjust for minor changes in location of the observing site, or for changes in the time of observation. Normals were not computed for substations that were moved a significant distance during the 1931-1960 period. Missing values in the data series were estimated by methods described in [6]. Substations whose locations were essentially unchanged during the 1931-1960 period are identified in the tables.

Monthly divisional normals are the means of the monthly divisional averages of temperature and precipitation for the period 1931-1960. In calculating the monthly divisional averages, all of the stations in the division that furnished both temperature and precipitation data during the particular month were used. The averages therefore were obtained from a variable station sample. As a result, the divisional normals often differ from the averages of the normals for stations in the division.

Annual substation and divisional normals are the averages of the 12 monthly temperature normals and the sums of the 12 monthly precipitation normals.

References

1. U. S. Weather Bureau, "History of Climatological Publications," Key to Meteorological Records Documentation No. 4. 1, Washington, D. C., 1958.

2. H. E. Landsberg, "The Decennial United States Census of Climate 1960 and Its Antecedents," Key to Meteorological Records Documentation No. 6. 2, U. S. Weather Bureau, Washington, D. C., 1960.

3. U. S. Weather Bureau, Climatology at Work, Gerald L. Barger, ed., Washington, D. C., 1960.

4. H. C. S. Thom, "Tests of Significance for Temperature and Precipitation Normals," U. S. Weather Bureau Manuscript, 1961.

5. H. C. S. Thom, "The Rational Relationship Between Heating Degree Days and Temperature," Monthly Weather Review, Vol. 82, No. 1, January 1954.

6. U. S. Weather Bureau, Administrative Manual, Vol. III, Chap. C-05, paras. C-0509 and C-0510.

NOTES

1. Station Names

In Table I, "AP" after the city name indicates "airport station" "CO" indicates "city office station." Figures and letters following the station name indicate a rural location, and refer to the distance and direction of the station from the nearest post office.

# indicates a station whose location has been essentially unchanged during the period 1931-1960.

H indicates the ground elevation of the station in feet above sea level, as of December 31, 1960.

G indicates the elevation at hygrothermometer site (where different from "H").

T indicates the height of the thermometer in feet above the ground as of December 31, 1960.

/NO TEST/ indicates that significant difference tests were not made.

2. Table Content

* indicates that the departure of the 1951-60 record from the 1921-50 normal is statistically significant, but through the adjustments for changes in location and exposure the absolute difference between old and new normals may even in these cases be very small.

T in the data tables indicates a monthly precipitation amount of only a trace.

February monthly normals are for a 28-day month.

TABLE I - NORMALS FOR FIRST ORDER STATIONS

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
BRISTOL AP	H1519 T 5													
MAX TEMP		47.8	50.0	56.5	68.2	77.6*	84.5	86.4*	85.4*	80.6	70.1	56.7	48.1	67.7
MIN TEMP		28.7	28.9	34.5	43.9	52.7*	60.9	64.4*	63.1*	56.5	44.9	34.1	28.5	45.1
AVG TEMP		38.3	39.5	45.5	56.1	65.2*	72.7	75.4*	74.3*	68.6	57.5	45.4	38.3	56.4
DEG DAYS		828	714	614	270	78*	0	0	0	60	248	588	828	4228
PRECIP		3.69	3.56	3.98	3.16	3.45	3.38	5.55	3.80	2.62	2.15	2.51	3.21	41.06
CHATTANOOGA AP	H 670 T 6													
MAX TEMP		50.9	54.1	61.1	72.0*	80.9*	88.3	90.0*	89.3*	84.2	73.9	60.5	51.5	71.4
MIN TEMP		32.4	33.6	39.2	47.8	56.3*	64.8	68.4*	67.2*	60.4	48.3	37.2*	32.4	49.0
AVG TEMP		41.7	43.9	50.2	59.9*	68.6*	76.6	79.2*	78.3*	72.3	61.1	48.9*	42.0	60.2
DEG DAYS		722	591	474	174*	37*	0	0	0	24	164	483*	713	3382
PRECIP		5.61	5.37	5.64	4.29	3.52	3.70*	5.11*	3.76	3.10*	3.02	3.65	5.19	51.96
KNOXVILLE AP	H 950 T 39													
MAX TEMP		50.1	52.7	59.9	70.9	79.9	87.4	89.5*	88.5*	83.8	73.0	59.2	50.3	70.4
MIN TEMP		31.6	32.4	38.2	47.8*	56.4*	64.9	68.2*	67.2*	60.6	48.8	37.1*	31.8	48.8
AVG TEMP		40.9	42.6	49.1	59.4*	68.2*	76.2	78.9*	77.9*	72.2	60.9	48.2*	41.1	59.6
DEG DAYS		747	627	508	183*	40*	0	0	0	30	171	504*	741	3551
PRECIP		4.88	4.81	4.73	3.70	3.50	3.33	4.82*	3.46*	2.54	2.61	3.24	4.23	45.85
MEMPHIS AP	H 263 T 7													
MAX TEMP		50.6	53.9	61.4	72.1	81.1*	89.3*	92.1*	91.7*	85.6	75.7	61.5	52.5	72.3
MIN TEMP		33.4	35.3	41.7	51.7	60.4*	68.6	71.5	70.3	63.1	51.5	39.7	34.5	51.8
AVG TEMP		42.0	44.6	51.6	61.9	70.8*	79.0*	81.8*	81.0*	74.4	63.6	50.6	43.5	62.1
DEG DAYS		713	571	440	135	16*	0	0	0	15	127	432	667	3116
PRECIP		6.07	4.69	5.07	4.63	4.23*	3.68	3.54	2.97	2.82	2.72*	4.38	4.93	49.73
MEMPHIS CO	H 271 T 78													
MAX TEMP		49.4	52.4	60.0	70.7	79.3*	87.3	89.7*	89.1*	83.3	73.8*	60.1	51.3	70.5
MIN TEMP		34.8	36.9	43.5	53.8	62.6	70.8	73.6	73.1*	66.7	55.6*	43.4	36.8	54.3
AVG TEMP		42.1	44.7	51.8	62.3	71.0*	79.1	81.7*	81.1*	75.0	64.7*	51.8	44.1	62.4
DEG DAYS		710	568	434	129	16*	0	0	0	12	102*	396	648	3015
PRECIP		5.81	4.55	4.90	4.62	4.03*	3.64	3.42	2.63*	2.81	2.86	4.17	4.69	48.13
NASHVILLE AP	H 577 T 6													
MAX TEMP		48.8	51.4	59.4	70.8	79.8	88.4	90.7*	89.9*	84.5	73.7*	59.1	50.3	70.6
MIN TEMP		30.9	32.5	38.7	48.4	57.4	66.3	69.6	68.4	61.1	49.3*	37.9*	32.4	49.4
AVG TEMP		39.9	42.0	49.1	59.6	68.6	77.4	80.2*	79.2*	72.8	61.5*	48.5*	41.4	60.0
DEG DAYS		778	644	512	189	40	0	0	0	30	158*	495*	732	3578
PRECIP		5.49	4.51	5.19	3.74	3.72	3.25	3.72*	2.86	2.87	2.32	3.28	4.19	45.14
OAK RIDGE AS-X 10	H 886 T 5													
MAX TEMP		48.9	51.6	58.9	70.0	79.0*	86.1	88.0	87.4*	83.0	72.2	58.6	49.4	69.4
MIN TEMP		31.2	31.8	37.0	46.3	54.8*	63.3	66.7*	65.6*	59.2	47.7	36.5	31.3	47.6
AVG TEMP		40.1	41.7	48.0	58.2	66.9*	74.7	77.4*	76.5*	71.1	60.0	47.6	40.4	58.5
DEG DAYS		772	652	536	216	53*	0	0	0	39	189	522	763	3742
PRECIP		5.24	5.39	5.44	4.14	3.48*	3.38	5.31	4.02*	3.59*	2.82	3.49	5.22	51.52
OAK RIDGE CO	H 905 T 5													
MAX TEMP		49.2	52.0	59.4	70.6	79.6*	86.8	88.7	87.8*	83.2	72.5	58.7	49.5	69.8
MIN TEMP		30.6	31.2*	36.6	45.9*	54.4*	63.2*	66.7*	65.3*	58.8	47.3	35.9	30.7	47.2
AVG TEMP		39.9	41.6*	48.0	58.3*	67.0*	75.0*	77.7*	76.6*	71.0	59.9	47.3	40.1	58.5
DEG DAYS		778	655*	536	213*	53*	0	0	0	39	192	531	772	3769
PRECIP		5.94	5.80	5.59	4.20	3.73	3.24	5.95	4.62	3.30*	2.67	3.77	5.90	54.71

TABLE II - NORMALS BY CLIMATOLOGICAL DIVISIONS

TENNESSEE

STATIONS (By Divisions)	TEMPERATURE (°F) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL	PRECIPITATION (In.) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
EASTERN																										
BLUFF CITY	•	•	•	•	•	•	•	•	•	•	•	•	•	4.07	3.85	4.29	3.49	3.81	3.67	5.77	3.98	2.84	2.33	2.84	3.60	44.54
BRISTOL AP	38.3	39.5	45.5	56.1	65.2	72.7	75.4	74.3	68.6	57.5	45.4	38.3	56.4	3.69	3.56	3.98	3.16	3.45	3.38	5.55	3.80	2.62	2.15	2.51	3.21	41.06
CHARLESTON	•	•	•	•	•	•	•	•	•	•	•	•	•	5.61	5.31	5.61	4.34	3.64	3.82	4.50	4.11	2.97	2.80	3.97	5.03	51.71
CHATTANOOGA AP	41.7	43.9	50.2	59.9	68.6	76.6	79.2	78.3	72.3	61.1	48.9	42.0	60.2	5.61	5.37	5.64	4.29	3.52	3.70	5.11	3.76	3.10	3.02	3.65	5.19	51.96
CLINTON	•	•	•	•	•	•	•	•	•	•	•	•	•	5.53	5.53	5.26	4.25	4.08	3.73	5.05	3.83	3.51	2.71	4.17	5.30	52.95
#COPPERHILL	39.8	41.2	47.0	56.8	65.7	73.2	76.1	75.1	69.2	58.0	46.5	40.2	57.4	5.65	5.64	6.08	4.64	3.59	4.21	5.85	4.93	3.24	3.08	3.83	5.14	55.88
#DANDRIDGE	•	•	•	•	•	•	•	•	•	•	•	•	•	4.29	4.52	4.68	3.59	3.39	3.33	4.72	3.71	2.57	2.35	3.05	3.81	44.01
#EMBREEVILLE	•	•	•	•	•	•	•	•	•	•	•	•	•	3.67	4.03	4.38	3.69	4.08	3.47	6.34	4.22	3.10	2.54	2.77	3.33	45.62
ERWIN	•	•	•	•	•	•	•	•	•	•	•	•	•	3.67	3.99	4.58	3.70	4.13	3.81	6.46	4.37	3.09	2.53	2.74	3.33	46.40
KINGSPORT 3 SE	•	•	•	•	•	•	•	•	•	•	•	•	•	4.00	3.98	4.43	3.52	3.54	3.34	4.94	3.99	2.69	2.22	2.84	3.45	42.94
#KINGSTON	•	•	•	•	•	•	•	•	•	•	•	•	•	5.27	5.35	5.21	4.12	3.58	3.45	4.49	4.03	2.88	2.59	3.84	4.95	49.76
KNOXVILLE AP	40.9	42.6	49.1	59.4	68.2	76.2	78.9	77.9	72.2	60.9	48.2	41.1	59.6	4.88	4.81	4.73	3.70	3.50	3.33	4.82	3.46	2.54	2.61	3.24	4.23	45.85
#LOUDON 1 E	40.6	42.3	48.6	58.7	67.6	75.8	78.7	77.8	72.1	60.8	48.0	40.9	59.3	5.28	5.26	5.39	3.95	3.65	3.39	5.05	3.68	3.17	2.81	3.69	4.86	50.18
#NEWPORT	40.4	41.8	48.0	58.3	67.3	75.2	78.0	76.9	71.3	60.0	47.4	40.4	58.8	4.20	4.35	4.57	3.61	3.60	3.88	5.13	4.02	2.56	2.55	2.77	3.53	44.77
OAK RIDGE AS X 10	40.1	41.7	48.0	58.2	66.9	74.7	77.4	76.5	71.1	60.0	47.6	40.4	58.5	5.24	5.39	5.44	4.14	3.48	3.38	5.31	4.02	3.59	2.82	3.49	5.22	51.52
OAK RIDGE CO	39.9	41.6	48.0	58.3	67.0	75.0	77.7	76.6	71.0	59.9	47.3	40.1	58.5	5.94	5.80	5.59	4.20	3.73	3.24	5.95	4.62	3.30	2.67	3.77	5.90	54.71
#PARKSVILLE	•	•	•	•	•	•	•	•	•	•	•	•	•	5.28	5.32	5.50	4.46	3.80	3.82	5.56	4.26	3.24	2.78	3.78	4.66	52.46
#ROGERSVILLE 1 NE	40.0	41.9	48.1	58.1	66.4	73.9	76.7	76.0	70.9	60.1	47.6	40.1	58.3	4.40	4.31	4.60	3.62	3.55	3.18	4.80	3.49	2.61	2.27	3.19	3.81	43.83
#TELLICO PLAINS	•	•	•	•	•	•	•	•	•	•	•	•	•	5.64	5.35	5.76	4.20	4.28	4.34	5.20	4.64	3.01	2.79	4.04	4.60	53.85
DIVISION	40.2	41.9	48.0	57.9	66.5	74.2	77.0	76.1	70.5	59.5	47.4	40.4	58.3	4.82	4.77	5.02	3.94	3.70	3.76	5.33	4.09	2.93	2.67	3.33	4.32	48.68
CUMBERLAND PLATEAU																										
CROSSVILLE EXP STA	36.9	38.2	44.8	54.9	63.6	70.7	73.8	73.0	67.5	57.0	45.2	37.8	55.3	5.83	5.62	5.45	4.37	3.90	4.03	4.66	4.40	3.40	2.83	4.03	5.48	54.00
#MC MINNVILLE	41.8	43.7	50.0	59.5	67.6	75.2	78.0	77.3	71.8	61.1	49.1	42.6	59.8	5.70	5.64	5.34	3.83	3.90	4.12	4.65	4.12	3.50	2.44	3.68	5.08	52.00
#ROCK ISLAND 2 NW	•	•	•	•	•	•	•	•	•	•	•	•	•	5.61	5.57	5.47	3.87	3.92	3.79	4.70	3.73	3.46	2.59	3.90	5.14	51.75
#SEWANEE	•	•	•	•	•	•	•	•	•	•	•	•	•	6.08	5.97	6.04	5.11	4.06	4.19	5.60	3.99	3.61	2.99	4.59	5.38	57.61
#TULLAHOMA	41.0	42.9	49.2	59.0	67.1	74.7	77.5	76.8	71.0	60.3	48.5	42.0	59.2	6.02	5.87	5.73	4.44	3.76	3.83	5.07	3.45	3.36	2.61	4.10	5.48	53.72
DIVISION	39.2	40.8	47.3	57.2	65.6	73.0	75.9	75.1	69.6	59.1	47.0	40.1	57.5	5.89	5.69	5.64	4.35	3.92	4.20	5.04	4.07	3.37	2.72	4.07	5.32	54.28
MIDDLE																										
#ASHWOOD	40.9	42.9	49.4	59.2	67.3	75.6	78.3	77.3	71.4	60.7	49.0	42.1	59.5	5.79	5.50	5.68	4.35	4.17	3.80	4.39	3.57	3.49	2.70	3.84	4.76	52.04
CARTHAGE	41.3	43.2	49.9	59.9	68.4	76.4	79.3	78.6	72.7	61.8	49.4	42.2	60.3	5.89	5.19	5.35	4.03	3.89	4.55	4.49	3.96	3.46	2.49	4.05	4.76	52.11
#CLARKSVILLE	39.9	42.3	49.5	60.0	68.3	76.9	80.0	79.1	72.4	61.3	48.9	41.3	60.0	6.03	4.31	5.14	4.16	3.80	3.35	3.75	3.24	3.01	2.57	3.90	4.28	47.54
COLDWATER	42.2	44.2	50.5	59.9	68.1	76.4	79.2	78.5	72.4	61.4	49.3	43.1	60.4	6.11	5.80	5.97	4.38	4.19	3.34	4.54	3.68	3.65	2.96	4.14	5.34	54.10
#DICKSON	40.2	42.5	49.6	60.0	67.9	76.1	79.0	78.2	71.8	61.1	48.9	41.5	59.7	6.06	4.76	5.57	4.41	4.24	3.72	4.48	3.42	2.88	2.70	4.07	4.63	50.94
#DOVER 1 NW	39.4	41.8	48.9	59.3	66.9	75.3	78.4	77.6	70.9	60.1	48.2	40.6	59.0	5.78	4.20	5.25	3.87	3.93	3.67	4.19	3.44	3.23	2.73	4.12	4.19	48.60
FAYETTEVILLE 1 NE	•	•	•	•	•	•	•	•	•	•	•	•	•	5.47	5.53	5.36	4.23	4.05	3.31	5.05	3.70	3.41	2.66	4.22	4.90	51.89
#FRANKLIN SEWAGE PLANT	40.1	42.3	48.9	58.8	67.2	75.7	78.5	77.8	71.3	60.5	48.4	41.2	59.2	5.61	5.09	5.32	4.01	3.81	3.50	3.85	3.72	2.77	2.47	3.58	4.30	48.03
LEWISBURG EXP STA	40.1	42.0	48.6	58.6	67.3	75.6	78.6	78.0	71.7	60.4	48.0	41.2	59.2	5.78	5.91	5.69	4.38	3.72	3.57	4.48	3.05	3.34	2.63	4.12	4.70	51.37
LYNVILLE 4 SW	40.8	42.6	49.4	58.8	66.9	74.8	77.8	77.4	71.3	60.4	48.3	41.6	59.2	6.01	6.22	6.07	4.69	4.08	3.60	4.61	3.82	3.25	2.71	4.64	5.04	54.74
MURFREESBORO	41.3	43.4	50.1	59.9	68.5	76.6	79.5	78.7	72.6	61.6	49.3	42.4	60.3	5.40	5.37	5.30	3.97	3.87	3.04	4.18	3.66	3.20	2.39	3.99	4.38	48.75
NASHVILLE AP	39.9	42.0	49.1	59.6	68.6	77.4	80.2	79.2	72.8	61.5	48.5	41.4	60.0	5.49	4.51	5.19	3.74	3.72	3.25	3.72	2.86	2.87	2.32	3.28	4.19	45.14
#PALMETTO	41.2	43.0	49.8	59.3	67.8	75.9	78.7	78.0	72.2	61.4	49.0	42.4	59.9	5.58	5.57	5.16	4.10	3.93	3.51	4.85	3.30	3.18	2.65	3.95	4.57	50.35
#PERRYVILLE	•	•	•	•	•	•	•	•	•	•	•	•	•	6.76	5.08	5.47	4.43	4.08	3.98	3.80	3.38	2.95	2.57	4.35	4.67	51.52
#SAVANNAH	42.2	44.5	51.5	61.3	69.2	77.3	80.5	79.9	73.4	62.4	50.5	43.2	61.3	6.55	5.31	5.52	4.57	4.04	4.22	3.95	3.65	3.12	2.71	4.33	5.03	53.00
#WAYNESBORO	39.4	41.3	48.5	58.4	66.1	74.3	77.4	76.7	70.4	59.3	47.3	40.5	58.3	6.13	5.77	5.75	4.87	4.21	4.45	4.54	3.73	3.16	2.77	4.67	5.15	55.20
DIVISION	40.4	42.5	49.3	59.3	67.7	76.0	78.9	78.1	71.9	60.9	48.6	41.6	59.6	6.01	5.15	5.42	4.24	3.97	3.77	4.20	3.44	3.17	2.63	4.00	4.67	50.67
WESTERN																										
BOLIVAR 2	41.3	43.9	50.9	61.0	68.8	76.8	79.9	79.2	72.7	61.6	49.6	42.7	60.7	6.57	5.10	5.36	4.65	3.63	3.98	4.29	3.50	3.92	2.75	4.53	4.70	52.98
#BROWNSVILLE	41.5	44.1	51.4	61.6	69.8	77.9	80.6	79.8	73.0	63.0	50.8	43.2	61.4	6.52	4.89	5.43	4.67	4.19	3.91	4.18	2.88	3.55	2.63	4.52	4.62	51.99
#COVINGTON	41.1	43.7	50.6	60.8	69.6	78.0	80.8	79.9	73.1	62.7	50.3	42.7	61.1	6.21	4.72	5.56	4.66	4.56	3.83	3.76	2.96	3.25	2.99	4.52	4.58	51.60
#DRESDEN	•	•	•	•	•	•	•	•	•	•	•	•	•	5.76	4.46	5.29	4.36	4.40	4.01	3.87	2.84	3.12	2.83	4.22	4.47	49.63
#JACKSON EXP STATION	40.6	43.2	50.1	60.2	68.4	76.7	79.5	78.8	72.1	61.5	49.2	42.2	60.2	6.42	4.82	5.26	4.60	4.03	4.18	4.56	3.36	3.40	2.56	4.28	4.39	51.86
#MC KENZIE	•	•	•	•	•	•	•	•	•	•	•	•	•	6.25	4.57	5.37	3.94	4.31	3.77	4.11	2.61	3.45	2.84	4.34	4.44	50.00
MEMPHIS AP	42.0	44.6	51.6	61.9	70.8	79.0	81.8	81.0	74.4	63.6	50.6	43.5	62.1	6.07	4.69	5.07	4.63	4.23	3.68	3.54	2.97	2.82	2.72	4.38	4.93	49.73
MEMPHIS CO	42.1	44.7	51.8	62.3	71.0	79.1	81.7	81.1	75.0	64.7	51.8	44.1	62.4	5.81	4.55	4.90	4.62	4.03	3.64	3.42	2.63	2.81	2.86	4.17	4.69	48.13
#MILAN	40.4	43.1	50.4	60.5	68.8	77.1	80.0	79.2	72.5	61.8	49.5	40.7	60.3	6.38	4.65	5.81	4.65	4.29	4.22	4.45	3.51	3.48	2.96	4.37	4.60	53.37
#MOSCOW	42.0	44.6	51.6	61.4	69.2	76.9	80.0	79.4	72.7	62.2	50.3	43.4	61.1	6.01	5.36	5.45	4.56	4.11	4.30	3.85	3.44	3.39	2.71	4.38	5.08	52.64
#NEWBERN	39.7	42.4	49.8	60.6	69.4	77.7	80.4	79.7	73.0	62.6	49.5	41.6	60.5	5.40	4.41	5.24	4.13	4.13	4.03	3.95	2.95	3.15	2.93	4.13	4.33	48.78
SAMBURG WILD LIFE RFG	38.3	40.9	48.8	59.9	69.0	77.5	80.6	79.6	72.2	61.3	48.3	40.1	59.7	5.14	4.34	5.06	4.17	4.59	3.93	3.90	2.72	3.17	3.08	4.17	4.26	48.53
#SELMER	•	•	•	•	•	•	•	•	•	•	•	•	•	6.30	5.42	5.34	4.59	3.81	4.31	3.88	3.22	3.37	2.88	4.29	4.80	52.21
UNION CITY	37.6	39.9	47.3	58.4	67.8	76.6	79.6	78.9	71.6	60.3	47.4	39.4	58.7	5.13	4.29	5.18	4.46	4.41	3.95	4.00	2.86	3.39	3.05	4.30	4.34	49.36
DIVISION	40.3	42.9	50.1	60.5	69.0	77.4	80.2	79.5	72.7	62.0	49.4	41.8	60.5	5.96	4.65	5.28	4.42	4.16	3.96	4.04	3.05	3.30	2.85	4.27	4.47	50.41

GPO 925813

1963 REVISIONS AND ADDITIONS TO CLIMATOGRAPHY OF THE UNITED STATES NO. 81-35
TENNESSEE
TABLE I — NORMALS FOR FIRST ORDER STATIONS

STATION	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
BRISTOL AP													
G1519 T 5													
MAX TEMP	46.8	50.0	56.5	68.2	77.6	84.5	86.4	85.4	80.6	70.1	56.7	47.1	67.5
MIN TEMP	29.7	30.0	35.5	44.9	53.7	61.9	65.4	64.1	57.5	45.9	35.1	29.5	46.1
AVG TEMP	38.3	40.0	46.0	56.6	65.7	73.2	75.9	74.8	69.1	58.0	45.9	38.3	56.8
DEG DAYS	828	700	598	261	68	0	0	0	51	236	573	828	4143
CHATTANOOGA AP													
G 670 T 5													
MAX TEMP	49.9	53.1	61.1	72.0	80.9	88.3	90.0	89.3	84.2	72.9	59.5	50.5	71.0
MIN TEMP	33.4	35.6	41.2	49.8	59.3	67.8	71.4	70.2	63.4	51.3	39.2	34.4	51.4
AVG TEMP	41.7	44.4	51.2	60.9	70.1	78.1	80.7	79.8	73.8	62.1	49.4	42.5	61.2
DEG DAYS	722	577	453	150	25	0	0	0	18	143	468	698	3254
KNOXVILLE AP													
G 980 T 5													
MAX TEMP	50.1	52.7	59.9	69.9	78.9	86.4	88.5	87.5	83.8	73.0	59.2	50.3	70.0
MIN TEMP	32.6	33.4	39.2	47.8	56.4	64.9	68.2	67.2	60.6	48.8	38.1	32.8	49.2
AVG TEMP	41.4	43.1	49.6	58.9	67.7	75.7	78.4	77.4	72.2	60.9	48.7	41.6	59.6
DEG DAYS	732	613	493	198	43	0	0	0	30	171	489	725	3494
MEMPHIS AP													
G 263 T 4													
MAX TEMP	50.6	53.9	61.4	72.1	80.1	88.3	91.1	90.7	85.6	75.7	61.5	52.5	72.0
MIN TEMP	32.4	34.3	40.7	50.7	60.4	68.6	71.5	70.3	62.1	50.5	38.7	32.5	51.1
AVG TEMP	41.5	44.1	51.1	61.4	70.3	78.5	81.3	80.5	73.9	63.1	50.1	42.5	61.5
DEG DAYS	729	585	456	147	22	0	0	0	18	130	447	698	3232
OAK RIDGE CO													
H 905 T 5													
MAX TEMP	49.2	51.0	58.4	69.6	78.6	85.8	87.7	86.8	83.2	72.5	58.7	49.5	69.3
MIN TEMP	30.6	31.2	36.6	45.9	54.4	63.2	66.7	65.3	58.8	47.3	35.9	30.7	47.2
AVG TEMP	39.9	41.1	47.5	57.8	66.5	74.5	77.2	76.1	71.0	59.9	47.3	40.1	58.2
DEG DAYS	778	669	552	228	56	0	0	0	39	192	531	772	3817
MEMPHIS CO H 271 T 78													
AVG TEMP													62.5

REVISIONS TO FIRST ORDER STATIONS IN TABLE I AFFECT THE SAME STATIONS IN TABLE II.

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